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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/634,434	08/08/2000	Randal Raymond Stark	24-NS-06020	4385

7590 06/28/2005

EXAMINER
RHODE JR, ROBERT E

ART UNIT	PAPER NUMBER
3625	

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DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

EA

Office Action Summary	Application No.	Applicant(s)	
	09/634,434	STARK ET AL.	
	Examiner	Art Unit	
	Rob Rhode	3625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 March 2005*.

2a)☒ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1- 5, 7 – 58 and 60 - 76* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1- 5, 7 – 58 and 60 - 76* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

SGO

DETAILED ACTION

Response to Amendment

Applicant amendment of 3-28-05 amended claims 1 and 33 as well as traversed rejections of Claims 1 and 33 as well as canceled claims 6 and 77 - 85.

Currently, claims 1- 5, 7 – 58 and 60 - 76 are pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 – 5, 7 - 21, 23 – 35, 37 – 58, 60 - 64, 66 – 72 and 74 – 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Palusamy (US 5,311,562) in view of Palusamy (US 4,908,775) and hereafter referred to as "Palusamy 2".

Regarding claim 1 and related claim 33, Palusamy teaches a method and system for managing internal components of nuclear reactor power plants using a network-based system including a server system coupled to a centralized interactive database and at least one client system, said method comprising the steps of; receiving information relating to internal components of a specific plant; storing the information into a

centralized database; updating the centralized database with information received; cross-referencing the information received against the specific plant (see at least); developing contingency options for repair or migration of specific internal components based on cracking susceptibility of specific components; generating contingency outage schedules for the contingency options; and providing information in response to an inquiry (see at least Abstract, Col 1, lines 7 – 67, Col 2, lines 1 – 18 and 48 – 66, Col 3, lines 20 – 34 and 60 – 68, Col 4, lines 11 – 15, Col 8, lines 26 – 68, Col 9, lines 61 – 68, Col 10, lines 1 – 2, Col 12, lines 13 – 18 and Figures 1 – 8).

On the other hand Palusamy 2 in the same area of managing plants via monitoring and calculating cracking, teaches a method of determining cracking susecptability for specific internal components based on information received and information stored in the database, wherein the cracking susecptability determination is based on a base material of the internal components, a weld filler material, and weld susecptability index based on a configuration of a weld and historical information of similar internal components in similar reactors (see at least Abstract, Col 2, lines 3 – 29, Col 3, lines 4 – 22, Col 4, lines 15 – 20 and Figures 1A – 2B). Please note that Palusamy 2 does not specifically disclose weld material. However, Palusamy 2 does disclose material properties (Col 4, line 41), which is one of several calculations for which determining cracking is based. Thereby, it would have been obvious to one of ordinary skill in the art to have extended Palusamy 2 with weld material suspect ability to cracking to further

ensure a higher level of safety for this nuclear plant and of course the surrounding community.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the method and system of Palusamy with the method and system of Palusamy 2 to have enabled a method and system for managing internal components of nuclear reactor power plants using a network-based system including a server system coupled to a centralized interactive database and at least one client system as recited in claims 1 and 33. Palusamy 2 discloses all the claim limitations except regarding "determining" (see at least Abstract, Col 1, lines 5 – 67 and Figures 1 – 8)). In turn, Palusamy 2 discloses a method and system in a plant for "determining" as recited in the claim (see at least Abstract, Col 3, lines 4 – 22 and Figures 1A – 2B). Therefore, one of ordinary skill in the art would have been motivated to extend the method and system of Palusamy with a method and system for determining cracking susecptability for specific internal components based on information received and information stored in the database, wherein the cracking susecptability determination is based on a base material of the internal components, a weld filler material, and weld susecptability index based on a configuration of a weld and historical information of similar internal components in similar reactors. In this manner, the method and system provide a plant management and control system that will anticipate internal component problems before they happen, provide recommendations with contingency options and thereby reduce long term cost

and ensure greater safety for these plants - as well as the community by anticipating and recommending options to reduce the risk of complete component failures.

Regarding claim 2 and related claims 43 and claim 3 and related claim 44 as well as claims 4, and related claim 45, a method and system wherein said step of "*receiving*" information further comprises the step of receiving data for at least one of a Dresden plant, a Dresden plant, a LaSalle 1 plant, a LaSalle 2 plant, a Quad Cities 1 plant, and a Quad Cities plant as well as nuclear reactor plants. Please note that in online methods and systems for interactive databases such specifics – as *receiving* information/data further comprises receiving data –" for at least one of a Dresden plant, a Dresden plant, a LaSalle 1 plant or nuclear reactor plants " and other non-functional descriptive material cited in these claims is given little patentable weight. The phrase(s) and or word(s) are given little patentable weight because the claim language limitation is considered to be non-functional descriptive material, which does not patentably distinguish the applicant's invention from Palusamy. Moreover and as taught by Palusamy, interactive databases have been capable of these functions and have had these capabilities well before the applicant's invention. Thereby, the non-fictional descriptive material is directed only to the content of the data (i.e. Core Spray Internal piping, a Dresden plant, a Dresden plant, a LaSalle 1 plant and other variations in these claims - which is received data) and does not affect either the structure or method/process of Palusamy, which leaves the method and system unchanged.

Regarding claim 5 and related claim 46 as well as other claims regarding "*storing*" and specifically claims 8 – 19 and 47 – 58, 61 as well as 71, Palusamy teaches a method and system wherein said step of "*storing*" information further comprises the step of *storing* data (see at least Abstract and Figure 4) for at least one of a Core Spray Internal piping, a Core Spray Sparger, a Lower plenum, a Shroud, a Shroud support and Access Hole Cover, a Jet Pump Diffuser, a Jet Pump Riser and riser Brace, a Jet Pump Inlet Mixer, a Jet Pump Sensing Line, an LPCI, a Top Guide 4, and a Core Plate as well as a plurality of plants. Please note that in online methods and systems for interactive databases with specifics such as – "a method wherein said step of *storing* information further comprises the step of *storing* data for at least one of a Dresden 2 plant" and other non functional descriptive material cited (such as Dresden plant 2) in these claims is given little patentable weight. The phrase(s) and or word(s) are given little patentable weight because the claim language limitation is considered to be non-functional descriptive material, which does not patentably distinguish the applicant's invention from Palusamy. Moreover and as taught by Palusamy, interactive databases are capable of these functions and have had these capabilities well before the applicant's invention. Thereby, the non-fictional descriptive material is directed only to the content of the data (i.e. Dresden 2 plant and other variations in these claims - which is stored data) and does not affect either the structure or method/process of Palusamy, which leaves the method and system unchanged.

Regarding claim 6 and related claim 59, Palusamy teaches a method and system further comprising developing contingency options for repair or mitigation of specific internal components (Col 2, lines 19 – 28).

Regarding claim 7 and related claim 60, Palusamy teaches a method and system further comprising selecting a specific repair or mitigation option for each specific internal component (Col 13, line 67 and Col 14, lines 1 – 5).

Regarding claim 20 and related claim 63, Palusamy teaches a method and system for a repair schedule for the specific components that coincides with the scheduled reactor plant shutdowns (Col 7, lines 30 – 33).

Regarding claim 21 and related claims 64 and 72, Palusamy does specifically disclose a method and system wherein said step of updating the centralized databases (see at least Figure 4) further comprises the steps of adding and deleting information and entering information on-line. Please note that Palusamy and Maguire disclose online methods and systems for interactive databases. However, Palusamy does not specifically disclose such specifics as – further comprises the steps of adding and deleting information and entering information online, which are old and well known to one of ordinary skill in the art at the time of the applicant's invention. It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the

method and system of Palusamy with the capability and steps to add and delete information on-line.

Regarding claim 23 and related claims 66 as well as claim 25 and related claim Palusamy teaches a method and system wherein said step of providing training information in response to an inquiry comprises the steps of: downloading requested information from a server system; and displaying requested information on a client system in response to the inquiry (see at least Abstract and Figures 3 - 5).

Regarding claim 24 and related claim 67, Palusamy teaches a method and system wherein said step of providing information further comprises the step of printing (Figure 3)

Regarding claim 26 and related claim 69 as well as 27 and related claim 70, Palusamy teaches a method and system wherein said step of accepting an inquiry further comprises the steps of: displaying information on the client system (see at least Figures 3 - 5) identifying at least one of an option relating to a specific nuclear plant; and receiving an inquiry from the client system (see at least Figures 1 and 7) regarding at least one of an option relating to a the specific nuclear plant. Please note that the non-functional descriptive material such as nuclear reactor plant and other non-functional descriptive material cited in these claims is given little patentable weight. The phrase(s) and or word(s) are given little patentable weight because the claim language limitation is

considered to be non-functional descriptive material, which does not patentably distinguish the applicant's invention from Palusamy. Moreover and as taught by Palusamy, interactive databases have been capable of these functions and have had these capabilities well before the applicant's invention. Thereby, the non-fictional descriptive material is directed only to the content of the data (i.e. nuclear reactor plants - which is stored data) and does not affect either the structure or method/process of Palusamy, which leaves the method and system unchanged.

Regarding claim 28 and related claim 74, Palusamy does not specifically disclose a method or system wherein said step of receiving an inquiry from the client system further includes the step of submitting a request through pull down menus. Please note that Palusamy does address the use of menus (see at least Figures 3 - 5). However, Palusamy does not specifically disclose the capability to provide pull down menus, which is old and well known to one of ordinary skill in the art at the time of the invention. It therefore would have been obvious to provide the method and system of Palusamy with pull down menus in order to have provided the capability.

Regarding claim 29 and related claim 75 Palusamy teaches a method and system wherein said step of displaying information further includes the step of displaying an HTML document downloaded by the server system (Figures 3 - 5).

Regarding claim 30 and related claim 76, Palusamy teaches a method wherein said step of displaying further comprises the step of displaying at least one alternative from various alternatives available to the user (Figures 3-5).

Regarding claim 31, Palusamy teaches a method wherein said step of downloading the information in response to the inquiry further comprises the steps of: accessing the centralized database; searching the database regarding the specific inquiry; retrieving information from the database; and transmitting the retrieved information to the client system for display by the client system (see at least Abstract and Figures 1 – 5) teaches a method wherein the client system and the server system are connected via a network and wherein the network is one of a wide area network, a local area network, an intranet and the Internet (Figure 2).

Regarding claim 34, Palusamy teaches a system wherein said client system is further configured with: a displaying component for displaying at least one of an option relating to a Core Spray Internal piping, a Core Spray Sparger, a Lower plenum, a Shroud, a Shroud support and Access Hole Cover, a Jet Pump Diffuser, a Jet Pump Riser and riser Brace, a Jet Pump Inlet Mixer, a Jet Pump Sensing Line, an LPCI, a Top Guide 4, and a Core Plate; and a sending component to send an inquiry to the server system so that the server system can process and download the requested information to the client system (Figures 1 – 3) and (35) wherein the sending component functions in response to a click of a mouse button (Col 8, lines 1 – 10) as well as (claim 37) wherein

said system is further configured to be protected from access by unauthorized individuals (Col 27, lines 66 – 67) and (38) wherein said server system is further configured with - a collection component for collecting information from users into the centralized database; a tracking component for tracking information on an on-going basis; a displaying component for displaying information on at least one of an option relating to a Core Spray Internal piping, a Core Spray Sparger, a Lower plenum, a Shroud, a Shroud support and Access Hole Cover, a Jet Pump Diffuser, a Jet Pump Riser and riser Brace, a Jet Pump Inlet Mixer, a Jet Pump Sensing Line, an LPCI, a Top Guide 4, and a Core Plate; a receiving component for receiving an inquiry from the client system regarding at least one of an option relating to a Core Spray Internal piping, a Core Spray Sparger, a Lower plenum, a Shroud, a Shroud support and Access Hole Cover, a Jet Pump Diffuser, a Jet Pump Riser and riser Brace, a Jet Pump Inlet Mixer, a Jet Pump Sensing Line, an LPCI, a Top Guide 4, and a Core Plate; and an accessing component for accessing the centralized database and causing the retrieved information to be displayed on the client system (see at least Abstract and Figures 1 – 4) and (39) wherein said server system further configured with a receiving component for receiving an inquiry to provide information from one of a plurality of users (Figure 1). Please note that the non-functional descriptive material such as Core Spray Internal piping and other non-functional descriptive material cited in these claims is given little patentable weight. The phrase(s) and or word(s) are given little patentable weight because the claim language limitation is considered to be non-functional descriptive material, which does not patentably distinguish the applicant's invention from Palusamy.

Moreover and as taught by Palusamy, interactive databases have been capable of these functions and have had these capabilities well before the applicant's invention. Thereby, the non-fictional descriptive material is directed only to the content of the data (i.e. Core Spray Internal piping and other variations in these claims - which is data) and does not affect either the structure or method/process of Palusamy, which leaves the method and system unchanged.

Regarding claim 40, Palusamy teaches a system wherein said server system further configured with a processing component for searching and processing received inquiries against the data storage device containing a variety of information collected by the collection component (Abstract and Figures 1 – 4).

Regarding claim 41, Palusamy teaches a system wherein said server system further configured with a retrieving component to retrieve information from the data storage device (Figures 1 – 4).

Regarding claim 42, Palusamy teaches a system wherein said server system further configured with an information fulfillment component that downloads the requested information after retrieving from the data storage device to the plurality of users in the order in which the requests were received by the receiving component (Figures 1 – 3).

Regarding claim 62, Palusamy teaches a system wherein said server system further configured to: track information on a real time basis; and store information on a real time basis by updating stored information by adding the new information to the centralized database on a real time basis to provide up-to date information instantaneously to the user upon a request (Abstract and Figures 1 – 4).

Claims 22, 36, 65 and 73 rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Palusamy and Palusamy 2, as applied to claims 21, 34, 64 and 72 and further in view of Bodo (US 6,122,239).

The combination of Palusamy and Palusamy 2 substantially discloses and teaches the applicant's invention.

However, the combination does not specifically disclose and teach a method and system wherein the sending component functions in response to a voice command.

On the other hand and regarding claim 22 and related claims 36, 65 and 73, Bodo teaches a method and system wherein the sending component functions in response to a voice command (Col 16, lines 20 – 22).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the combination of Palusamy and Palusamy 2 with the method and

system of Bodo to have enabled wherein the sending component functions in response to a voice command – in order to provide ease of use by a plant technician. The combination of Palusamy and Palusamy 2 disclose a method and system for managing internal components of nuclear reactor power plants using a network-based system including a server system coupled to a centralized interactive database and at least one client system, said method comprising the steps of – receiving information relating to internal components of a specific plant; storing the information into a centralized database; updating the centralized database with information received; cross-referencing the information received against the specific plant; developing inspection recommendations for specific internal components based on information received and information stored in a database; determining cracking susceptibility for specific internal components based on information received and information stored in a database; ; developing contingency options for repair or mitigation of specific internal components; generating contingency outage schedules for contingency options; and providing information in response to an inquiry. Bodo discloses a method and system for a method and system wherein the sending component functions in response to a voice command. Therefore, one of ordinary skill in the art would have been motivated to extend the combination of Palusamy and Palusamy 2 with a method system for a method and system wherein the sending component functions in response to a voice command. In this regard, it would allow the technician to work on a correcting problem, while communicating with appropriate individuals.

Response to Arguments

Applicant's arguments with respect to claims 1 and 33 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Rob Rhode** whose telephone number is **571.272.6761**. The examiner can normally be reached Monday thru Friday 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Wynn Coggins** can be reached on **571.272.7159**.

Any response to this action should be mailed to:

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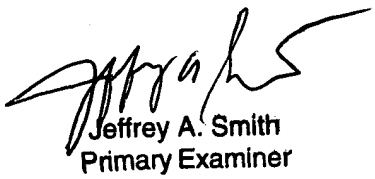

Jeffrey A. Smith
Primary Examiner